

### REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed March 10, 2009. At the time of the Final Office Action, 1-20 were pending in this Application. Claims 1-20 were rejected. Claims 1, 3, 10, 11, 13 and 20 have been amended. Applicant respectfully requests reconsideration and favorable action in this case.

#### Rejections under 35 U.S.C. § 112

Claims 3-5 and 11-15 were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite and failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant amends Claims 3 and 13 to overcome these rejections and respectfully request full allowance of Claims 3-5 and 11-15 as amended.

#### Rejections under 35 U.S.C. § 102

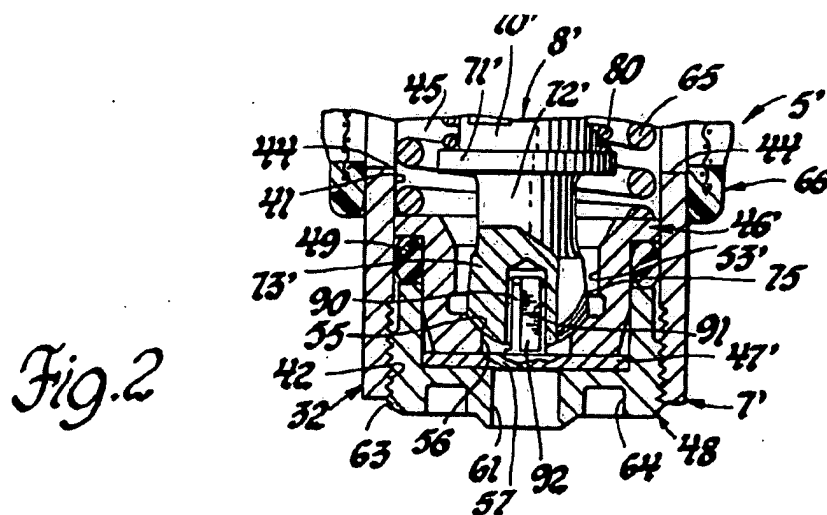
Claims 1-4, 6-8, 10-14, 16-18 and 20 stand rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,423,842 issued to James D. Palma ("Palma"). Applicant respectfully traverses and submits the cited art does not teach all of the elements of the claimed embodiment of the invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "the identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicant respectfully submits that the cited art as anticipated by the Examiner cannot anticipate the rejected Claims, because the cited art does not show all the elements of the present Claims.

Claim 1 recites that "the cavity makes the seat part flexible in the sealing area and enables micrometric deformations of the seat part when engaged in the needle seat, and wherein the cavity is either empty or filled with a material of a suitable stiffness in order to achieve a desired flexibility of the seat part, whereby a seal is formed between the seat

part and the needle seat when the seat part is engaged in the needle seat." Independent claims 10, 11 and 20 recite similar limitations. According to the specification, "[t]he invention is based on the finding, that the cavity makes the seat part flexible and enables micrometric deformations of the seat part in the needle seat, which improve the sealing quality between the needle seat and the sealing area of the seat part very much." (Specification at ¶11).

Palma fails to teach or suggest a cavity that makes a seat part flexible so as to enable micrometric deformations of the seat part when a seat part is engaged in the needle seat. In particular, Paula teaches the opposite of the claimed invention wherein it discloses a director post 90 inserted into the blind bored guide wall 91. (See Palma at 8:50-54). This configuration is clearly illustrated in Figure 2.



(Palma at Figure 2). To be effective as a means for axially aligning the needle valve, the director post 90 snugly fits inside the guide wall 91. In particular, Palma teaches that the fit between the director post 90 and the guide wall 91 is so tight that fluid passages created by flats 92 are required to prevent hydraulic lock.

As shown, the director post 90 is positioned radially inward of the upper end openings of the director passages 57 in the director plate. Preferably, suitable means, such as one or more flats 92 formed in the guide post 90 define with the guide wall 91 fluid passages to prevent an hydraulic lock from occurring

during relative reciprocation of the guide post 90 within the chamber defined by guide wall 91.

(Palma at 8:58-65). Where the director post 90 is snugly inserted into the guide wall 91, there is no room for the guide wall 91 to flex inwardly without pressing against the direct post 90. In other words, the direct post prevents micrometric deformations of the guide wall 91 when the guide wall 91 is engaged in the valve seat 55.

Thus, Palma does not disclose, either expressly or inherently, the invention as claimed in claims 1, 10, 11 and 20 so that the independent claims are patentable in view of Palma. The dependent claims are patentable for similar reasons.

#### **Rejections under 35 U.S.C. §103**

Claims 5, 9, 15 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Palma*.

Claims 1, 3-4, 6-7, 10-11, 13-14, 16-17 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,338,445 issued to Malcolm David Dick Lambert et al. ("*Lambert*") in view of U.S. Patent No 6,631,854 issued to Hubert Stier ("*Stier*").

Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the claimed embodiment of the invention obvious.

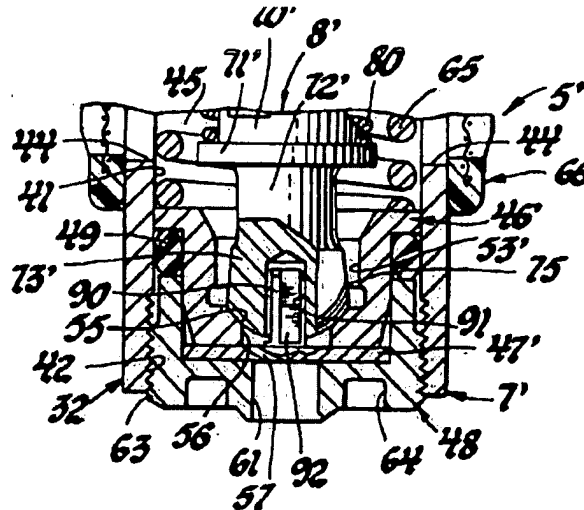
In order to establish a prima facie case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Even if each limitation is disclosed in a combination of references, however, a claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Rather, the Examiner must identify an apparent reason to combine the known elements in the fashion claimed. *Id.* "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Finally, the reason must be free of the distortion caused by hindsight bias and may not rely on ex post reasoning. *KSR*, 127 S.Ct. at 1742. In addition, evidence that such a combination was uniquely challenging or difficult tends to show that a claim was not obvious. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. and Mattel, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), citing *KSR*, 127 S.Ct. at 1741.

Claim 1 recites that “the cavity makes the seat part flexible in the sealing area and enables micrometric deformations of the seat part when engaged in the needle seat, and wherein the cavity is either empty or filled with a material of a suitable stiffness in order to achieve a desired flexibility of the seat part, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.” Independent claims 10, 11 and 20 recite similar limitations. According to the specification, “[t]he invention is based on the finding, that the cavity makes the seat part flexible and enables micrometric deformations of the seat part in the needle seat, which improve the sealing quality between the needle seat and the sealing area of the seat part very much.” (Specification at ¶11).

Palma fails to teach or suggest a cavity that makes a seat part flexible so as to enable micrometric deformations of the seat part when a seat part is engaged in the needle seat. In particular, Paula teaches the opposite of the claimed invention wherein it discloses a director post 90 inserted into the blind bored guide wall 91. (See Palma at 8:50-54). This configuration is clearly illustrated in Figure 2.

*Fig. 2*



(Palma at Figure 2). To be effective as a means for axially aligning the needle valve, the director post 90 snugly fits inside the guide wall 91. In particular, Palma teaches that the fit between the director post 90 and the guide wall 91 is so tight that fluid passages created by flats 92 are required to prevent hydraulic lock.

As shown, the director post 90 is positioned radially inward of the upper end openings of the director passages 57 in the director plate. Preferably, suitable means, such as one or more flats 92 formed in the guide post 90 define with the guide wall 91 fluid passages to prevent an hydraulic lock from occurring during relative reciprocation of the guide post 90 within the chamber defined by guide wall 91.

(Palma at 8:58-65). Where the director post 90 is snugly inserted into the guide wall 91, there is no room for the guide wall 91 to flex inwardly without pressing against the director post 90. In other words, the director post prevents micrometric deformations of the guide wall 91 when the guide wall 91 is engaged in the valve seat 55.

Lambert also fails to teach the invention. Lambert teaches that clearance 27 is sealed between an outer valve needle 12 and an inner valve needle 18.

As the end region 12b of the outer valve needle 12 is deformable, when an increased axial load is applied to the valve insert member 30 to urge the outer valve needle 12 against the first seating 13b, the end region 12b of the outer valve needle 12 deforms inwardly and co-operates with the inner valve needle 18 so as to form a substantially fluid tight seal. The seal formed between the inner valve needle 18 and the region 12b of the outer valve needle closes the clearance 27 and, thus, any fuel remaining in the chamber 23 following an

injection of fuel cannot escape from the chamber 23 through the clearance passage 27.

(Lambert at 6:44-50). Thus, Lambert fails to teach the invention as claimed.

Stier also fails to teach the invention. In particular, Stier fails to teach or suggest a cavity that makes a seat part flexible in the sealing area and enables micrometric deformations of the seat part when engaged in the needle seat, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.

Thus, the combination of Palma, Lambert and Stier does not disclose, either expressly or inherently, the invention as claimed in claims 1, 10, 11 and 20 so that the independent claims are patentable in view of Palma, Lambert and Stier. The dependent claims are patentable for similar reasons.

**Association of Customer Number and Change of Correspondence Address**

Applicant respectfully requests that all papers pertaining to the above-captioned patent application be associated with Customer No. **86528**, and direct all correspondence pertaining to this patent application to practitioners at Customer Number **86528**. All telephone calls should be directed to R. William Beard, Jr. at 512.457.2026. A Revocation and Power of Attorney will be filed shortly.

**CONCLUSION**

Applicant has made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicant respectfully requests reconsideration of the pending claims.

Applicant respectfully submits a Petition for One-Month Extension of Time. The Commissioner is authorized to charge the fee of \$130.00 required to Deposit Account 50-4871 in order to effectuate this filing.

Applicant believes there are no other fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.457.2026.

Respectfully submitted,  
KING & SPALDING L.L.P.  
Attorney for Applicant



R. William Beard, Jr.  
Registration No. 39,903

Date: May 12, 2009

**SEND CORRESPONDENCE TO:**

KING & SPALDING L.L.P.

CUSTOMER ACCOUNT NO. **86528**

512.457.2026

512.457.2000 (fax)